ROUNDTABLE
SOCIAL SCIENCES RESEARCH INFRASTRUCTURE
April 5, 2022 | Canberra

On Tuesday 5 April, representatives from Australian universities, research institutes, Commonwealth Government science and data agencies, community organisations, Academies and national collections convened in Canberra to discuss planning and investment in the critical social science research infrastructure needed to address the social and economic challenges facing Australia over the next decade.
The discussion covered the need to collect and manage diverse physical and digital data assets, governance frameworks to manage access, privacy, and security, the increasingly sophisticated tools and platforms required to connect and analyse data, and the need for a highly-skilled workforce of researchers, methodologists, data scientists and engineers.

A large but fragmented collection
Australia's social science research infrastructure comprises a diverse and often fragmented mix of small assets and facilities (supported with ad-hoc grant funds and institutional investments) and large-scale national collections, datasets, technologies, and standards of international significance.
The need to invest in social science research infrastructure was recognised in the 2016 and 2022 Research Infrastructure Roadmaps. In recent years, funding has been provided through the National Collaborative Research Infrastructure Strategy (NCRIS) and Australian Research Data Commons (ARDC) for a number of small-scale projects, including the HASS Research Data Commons and Indigenous Research Capability.

However, it is clear that Australian social science research infrastructure still requires significant investment to integrate existing components into fully functional national assets, able to support scientists in addressing the challenges facing the nation.

Working with Indigenous data
Participants discussed the critical role of Indigenous data sovereignty, defined as *the right of Indigenous Peoples to govern the collection, management, access, interpretation, dissemination, and reuse of data related to them* (see Kukutai and Taylor 2016).
It was acknowledged that a great deal of research and government policy has harmed Indigenous communities, and separated Indigenous people from the production, storage, and usage of data related to them, often without returning any direct benefits. There was consensus that getting data infrastructure and governance arrangements right for Indigenous peoples would raise the standards of practice for all researchers.

New ways of doing social science
The pace of change in the data and research landscape is accelerating.
The social sciences are witnessing a rapid expansion in the types and volume of data produced and stored by governments, private companies, research organisations, and individuals, including: long-term national studies; health, transport, population, and administrative data; corporate records of

"Indigenous Australians have done the work of defining best practice standards for the use of Indigenous data. The ball is on your court now. Get informed, apply them".

Dr Jacob Prehn
Senior lecturer and Indigenous Fellow, School of Social Sciences, UTAS

health and consumer behaviour; online platforms, search and social media data (video, audio, images, text, and structured data); and the huge amount of information coming from sensors, 'wearables', and the internet of things.

This proliferation of data comes accompanied by an increase in the availability and sophistication of automated and autonomous tools, such as reusable research code, natural language processing, machine learning, and artificial intelligence.

Digital technologies, in sum, are transforming the options and approaches available to social science researchers, government, industry, and the community to think about and address social and economic challenges. To benefit from these technologies (and understand and avoid their risks), Australia must invest in the tools and integrated data systems that will allow social science researchers in all sectors to elevate the standard of evidence.

A new distributed governance model

Participants agreed that a national federated, distributed infrastructure model is most likely to succeed in linking existing data structures together (assets and tools owned or operated by different universities, non-profit organisations, and levels of government). Australia has an opportunity to become a leader in cutting-edge research environments for social science, through the integrated collection, connection, and analysis of diverse data sources and formats at a scale not previously possible. Other opportunities include transitioning from data-focused to code-focused data commons, developing systems for modeling and real-time monitoring of policy implementation and impact, and establishing innovative data donation and crowdsourcing tools.

Towards a social science research infrastructure decadal plan

The roundtable closed with an agreement on the value of forming an alliance of stakeholder organisations to act as a representative voice for those using research infrastructure to address and advance social and economic challenges, act as a partner in the planning and implementation of national strategic research infrastructure, and as an expert group available to consult broadly and represent the sector in advocating for necessary change.

The first task for this alliance would be a sector-based Decadal Plan to inform future investment in social sciences, humanities, and related research infrastructure over the coming decade.

PARTICIPANTS

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